The *prevailing winds* for February, 1895, viz, those that were recorded most frequently at Weather Bureau stations, are shown in Table I.

The *resultant winds*, as deduced from the personal observations made at 8 a. m. and 8 p. m., are given in Table IX. These latter resultants are also shown graphically on Chart II, in connection with the isobars based on the same system of simultaneous observation; the small figure attached to each arrow shows the number of hours that this resultant prevailed, on the assumption that each of the morning and evening observations represents one hour's duration of a wind of average velocity; these figures (or the ratio between them and the total number of observations in this month) indicate the extent to which winds from different directions counterbalanced each other.

Maximum wind velocities of 50 miles or more per hour were reported at regular stations of the Weather Bureau as follows (maximum velocities are averages for five minutes; extreme velocities are gusts of shorter duration, and are not given in this table):

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		Miles				*Miles*	
Amarillo, Tex	2	52	sw.	Fort Canby, Wash	22	58	s.
Cheyenne, Wyo	22	50	nw.	Do	23	62	se.
Do	23	56	w.	Do	31	50	se.
Chicago, Ill	3	50	ne.	Hatteras, N. C	21	54	n.
Do	4	50	ne.	Huron, S. Dak	21	58	se.
Do	23	50	sw.	Do	22	52	s.
Do	24	50	sw.	Kittyhawk, N. C	8	50	sw.
Dodge City, Kans	30	51	s.	Do	16	52	ne.
El Paso, Tex	15	52	sw.	Do	20	54	n.
Do	29	54	sw.	Do	21	54	n.
Fort Canby, Wash	15	53	se.	Lexington, Ky	8	50	nw.
Do	19	71	se.	New York, N. Y	28	64	nw.
Do	20	56	s.	Tatoosh Island, Wash.	2	50	w.
Do	21	72	s.	Winnemucca, Nev	21	52	sw.

SUNSHINE AND CLOUDINESS.

The quantity of sunshine, and therefore of heat, received by the atmosphere, as a whole, is very nearly constant from year to year, but the proportion received by the surface of the earth depends largely upon the absorption by the atmosphere, and varies with the distribution of cloudiness. The sunshine is now recorded automatically at 17 regular stations of the Weather Bureau by its photographic, and at 27 by its thermal effects. The results are given in Table XI for each hour of local, not seventy-fifth meridian, time. The cloudiness is determined by numerous personal observations at all stations during the daytime, and is given in the column of "average cloudiness" in Table I; its complement or clear sky is given in the last column of Table XI.

COMPARISON OF SUNSHINE AND CLEAR SKY.

The sunshine registers give the *duration* of direct sunshine whence the percentage of possible sunshine is derived; the observer's personal estimates give the percentage of *area* of clear sky. It should not be assumed that these numbers should agree, and for comparative purposes they have been brought together, side by side, in the following table, from which it appears that, in general, the instrumental record of percentages of duration of sunshine is almost always larger than the observer's personal estimates of percentages of area of clear sky; the average excess for March, 1895, is 7 per cent for photographic records, and 13 per cent for thermometric records. The details are shown in the following table:

Difference between instrumental and personal observations of sunshine for March, 1895.

Photographic stations.	Instrumental.	Personal.	Difference.	Thermometric stations.	Instrumental.	Personal.	Difference.
Tucson, Ariz	80	64	16	Key West, Fla	83	65	18
Santa Fe, N. Mex	75	57	18	Marquette, Mich	82	44	38
Denver, Colo	72	59	13	Baltimore, Md	70	53	17
Dodge City, Kans	72	61	11	St. Louis, Mo	69	55	14
Kansas City, Mo	65	54	11	Chicago, Ill	68	60	8
Helena, Mont	61	57	4	Portland, Me	68	42	26
Salt Lake City, Utah*	61	39	22	San Francisco, Cal	68	49	19
San Diego, Cal	59	62	— 3	Atlanta, Ga	65	50	15
Savannah, Ga	58	54	4	Des Moines, Iowa	64	49	15
Bismarck, N. Dak	57	58	— 1	Vicksburg, Miss	63	60	3
Cincinnati, Ohio	57	48	9	Salt Lake City, Utah*	62	39	23
Spokane, Wash	53	35	18	New York, N. Y	62	44	18
Galveston, Tex	52	55	— 3	New Haven, Conn	61	52	9
Eastport, Me	51	37	14	Norfolk, Va	61	55	6
Memphis, Tenn	49	47	2	Washington, D. C	59	50	9
Portland, Oreg.*	46	46	0	Boston, Mass	58	43	15
Cleveland, Ohio	40	44	— 4	Detroit, Mich	58	46	12
				Louisville, Ky	57	46	11
				Philadelphia, Pa	57	46	11
				Rochester, N. Y	57	55	2
				Columbus, Ohio	56	40	16
				Buffalo, N. Y	55	40	15
				New Orleans, La	54	54	0
				Wilmington, N. C	53	53	0
				Little Rock, Ark	52	45	7
				Portland, Oreg.*	48	46	2
				Seattle, Wash	46	35	11

* Records kept by both registers.

ATMOSPHERIC ELECTRICITY.

The statistics relative to auroras and thunderstorms are given in Table X, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

The dates on which reports of thunderstorms for the whole country were most numerous were: 8th, 60; 12th, 63; 13th, 59; 14th, 65; 25th, 147; 30th, 109; 31st, 97. Thunderstorms were most numerous in Ohio, Missouri, Mississippi, South Carolina, Alabama, Georgia, Louisiana, Pennsylvania, Florida, and Texas. Thunderstorm days were most frequent in Ohio, where they numbered 16; Arkansas, 13; Alabama, Mississippi, and South Carolina, 12; North Carolina and Tennessee, 11. *Severe thunderstorms* are especially mentioned under "Local Storms."

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, from the 6th to the 14th, inclusive. On the remaining twenty-two days of this month 241 reports were received, or an average of about 11 per day. The dates on which the reported number especially exceeded this average were: 13th, 17; 14th, 36; 16th, 59; 22d, 16.

Auroras were reported by a large percentage of observers in Maine, Minnesota, New Hampshire, New York, North Dakota, South Dakota, and Wisconsin.